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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/708,455	03/04/2004	Robert J. Iasillo	145662-1	2454
23413	7590	03/01/2006	EXAMINER	
CANTOR COLBURN, LLP 55 GRIFFIN ROAD SOUTH BLOOMFIELD, CT 06002			CASAREGOLA, LOUIS J	
			ART UNIT	PAPER NUMBER
			3746	
DATE MAILED: 03/01/2006				

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/708,455

Applicant(s)

IASILLO ET AL.

Examiner

Louis J. Casaregola

Art Unit

3746

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-4, 6-9 is/are rejected.
- 7) ☒ Claim(s) 5-8, 10-17 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                        | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)               | Paper No(s)/Mail Date. ____.  |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date ____.  | 6) <input type="checkbox"/> Other: ____.                                    |

### ***Objections To Claims***

Claims 5-8 and 10-17 are objected to under 37 CFR 1.75(a) for the following reasons:

Claim 5 and related dependent claims 6-8 recite “a plurality of passageways, one of said passageways being a water injection passageway” (claim 5, lines 5-6). The claims further recite “interconnecting said water injection passageway to one of said plurality of passageways ... said one of the plurality of passageways flowing high pressure air...” (claim 5, lines 7-10). The cited language is confusing since both the water and air passageways are both referred to simply as “one” of said plurality of passageways. To avoid this problem, the water passageway should be referred to in lines 7 and 9 as “another” or “a second one” of said plurality of passageways.

Claim 10 and dependent claim 11 recite “passageways for flowing a liquid fuel, water injection and high pressure air” (claim 10, lines 5-6), and claim 17 includes similar language (line 4). The expression “water injection” is misused in this context since it describes a process rather than a flowable substance. The term “injection” should therefore be deleted from claims 10 and 17 so that the cited expression refers simply to “water”

Claim 12 and dependent claims 13-16 recite “a water injection for flowing water into the combustor” (claim 12, line 4), but the claims further refer to “the water injection passageway” (claim 12, lines 5 and 7). It thus appears that the term “passageway” has

been inadvertently omitted from the first cited expression, and this term should therefore be inserted after "water injection" in claim 12, line 4.

***Claim Rejections - 35 USC 112***

Claims 2-4 and 6-8 are rejected under 35 USC 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicants regard as the invention.

All of the listed claims require the step of "eliminating a dedicated purge air system" (see line 2 in claims 2 and 6, and lines 1-2 in claims 3 and 7). There is nothing in any of these claims actually specifying that such a purge air system is initially present. The cited expression is thus indefinite since the step of eliminating an element has no clear meaning if the element itself was never positively included.

Claims 3 and 4 exhibit a further similar problem in that they refer to "flameout due to excessive rapid introduction of water" (claim 3, lines 3-4), and "water downstream of a first swirler" (claim 4, line 3). These expressions have no clear meaning since the claims do not actually include any type of positively recited step or means for adding water.

***Claim Rejections - 35 USC 102***

Claims 1 and 9 are rejected under 35 USC 102(b) as being anticipated by Traver et al (US Pat. 6,438,963).

All of the steps in the broadly claimed fuel system operating method are included in the operation of prior art systems of the type disclosed by Traver. Attention is called for example to Traver's Figure 2; note that liquid fuel flows to combustor 118 via the passageway (fuel passageway) between fuel source 172 and the combustor, pressurized atomizing air flows to the combustor via the passageway (first passageway) between atomizing air compressor 150 and air manifold 134, and the first passageway is interconnected via conduit 130 with the water injection passageway (second passageway) encompassed by unit 26.

***Allowable Subject Matter***

Claims 5 and 10-17 contain allowable subject matter. If amended to overcome the § 1.75(a) objections above, these claims will be allowed.

***Additional; References***

Statler and Vandervort et al are cited as disclosing further pertinent examples of prior art gas turbine fuel nozzles.



L. J. Casaregola  
571-272-4826 (M-F; 7:30-4:00)  
571-273-8300 FAX  
February 27, 2006

If repeated attempts to reach the examiner by telephone are unsuccessful, the art unit supervisor, Timothy Thorpe, can be reached at 571-272-4444.

Information regarding the status of this application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR, and status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).